

WHAT IS CLAIMED IS:

1. A system for removing material buildup from interior walls of a device that produces integrated circuit structures on semiconductor wafers, the device having a chamber for placing the semiconductor wafers, the chamber environmentally coupled to a gas source through a gaseous flow path, the system comprising:

a heat source, interposed in the gaseous flow path upstream of the chamber, that heats the gas flowing from the gas supply; and

the heated gas placing the atmosphere in at least part of the device at a point where sublimation or evaporation of the material will occur.

2. A process for removing deposited material from a device, the device having interior walls upon which material is deposited, the device suitable for use in production of integrated circuit structures on semiconductor wafers, the process comprising the steps of:

creating a flow of gas through said device from a first point in the device; through an exit spaced from said first point in the device, the flow of gas creating an atmospheric pressure of about 100 Torr to normal atmosphere in the device;

heating the gas flowing through the device;

sublimating or evaporating, based on the combination of the heating and the atmospheric pressure, the deposited material from the surface of the interior wall in the device into a gaseous material; and

removing the gaseous material from the device with the gaseous flow.

3. The process of claim 2 wherein the step of heating is accomplished with a resistive heater.

4. The process of claim 2, the device comprising a chamber, and wherein the step of sublimating or evaporating is directed at deposited material in the chamber.

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5. The process of claim 2, the device comprising a purge element, and wherein the step of sublimating or evaporating is directed at deposited material in the purge element.

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6. The process of claim 2, wherein the gas is an inert gas.

7. The process of claim 6, wherein the inert gas is nitrogen.

10 8. A process for removing deposited material from a device suitable for use in production of integrated circuit structures on semiconductor wafers, the device having interior walls upon which material is deposited, the process comprising the steps of:

15 changing the material deposited on the interior walls of the device into a gaseous material; and
removing the gaseous material from the device with a gaseous flow.

20 9. A process for cleaning deposited material off of interior walls of a production device used in the production of semiconductor devices, the process comprising the steps of:

changing the material deposited on the interior walls of the device into a gaseous material; and
removing the gaseous material from the device with a gaseous flow.

25 10. A process for running a production device used in the production of semiconductor devices, the production device maintaining an internal environment sealed from an external environment when producing a batch of semiconductor devices, the production device creating material that is deposited on interior walls of the production device when producing a batch of
30 semiconductor devices, the process comprising the steps of:

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5 concurrently with the step of changing, removing the gaseous material from the device with a gaseous flow.

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